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Reply

We cordially appreciate the valuable comments from Dr. Schachner and colleagues on our study (1) assessing the relationship between cerebral atherosclerosis and post-coronary artery bypass graft (CABG) stroke. Cerebral atherosclerosis was both an independent risk factor for and the cause of a significant (45%) proportion of post-CABG strokes (1). Thus, as rightfully noted by Dr. Schachner and colleagues, awareness and careful management may be mandatory for those patients with cerebral atherosclerosis who are undergoing CABG.

Dr. Schachner and colleagues had 2 specific questions for us: Was the perioperative management adapted in patients with (more severe) cerebrovascular disease, and did (severe) atherosclerosis of the aortic arch and/or the ascending aorta have an impact on post-CABG strokes? With regard to the first question, we currently do not have a routine protocol for patients with cerebral atherosclerosis. Rather, perioperative management was decided and performed adequately according to the situation by attending physicians, surgeons, and anesthesiologists who were alerted to the result of pre-operative magnetic resonance angiography (MRA). To the best of our knowledge, no large study has been conducted on the relationship between a specific perioperative management and the risk of post-CABG stroke in patients with (severe) cerebral atherosclerosis. But we agree with Dr. Schachner and colleagues on the issue that modifying strategies may be helpful in reducing the risk of post-CABG stroke. A small study of 140 patients undergoing CABG revealed that a different surgical strategy (off-pump CABG) helped to prevent post-CABG strokes (2). In addition, different perioperative management (e.g., immediate commencement of antiplatelet or anticoagulant therapy and prolonged cardiac monitoring after the surgery in patients with cerebral atherosclerosis) can be a useful strategy to reduce the stroke risk. Additional studies are warranted to elucidate the optimal management in those patients.

For the second question, all patients did not undergo aortic evaluation by transesophageal echocardiography (TEE) in our study. In addition, intraoperative epiaortic ultrasonography data were not recorded in the study registry. Thus, we cannot provide

the exact data regarding the question. But, we believe that severe atherosclerosis of the aortic arch and/or the ascending aorta can increase the risk of post-CABG stroke (3). Accordingly, in our institution, surgeons tend to perform off-pump CABG and/or aortic “no-touch” techniques in those with severe atherosclerotic aortic disease. Notably, current aorta-evaluating methods may be too invasive to be applied to all CABG candidates. The elderly cannot tolerate pre-operative TEE too often; embolic strokes can be induced by direct manipulation of the aorta with unstable atheroma. Thus, investigating noninvasive predictors of aortic atherosclerosis may be useful. We believe that cerebral atherosclerosis evaluated by using MRA can be one of those predictors. It may be interesting to evaluate the relationship between aortic arch and cerebral atherosclerosis by conducting both pre-operative TEE and MRA in stable CABG patients. In addition, we believe that this approach might bring us the right answer with regard to the second question raised by Dr. Schachner and colleagues.

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Impaired Fasting Glucose and the Risk of Incident Diabetes Mellitus and Cardiovascular Events

We read with great interest the paper by Yeboah et al. (1) regarding the effect of impaired fasting glucose (IFG) and incident diabetes, as well as diagnosed diabetes mellitus on cardiovascular events after a mean follow-up duration of 7.5 years, and its conclusion of IFG not being independently associated with an increased short-term risk for incident cardiovascular events (whereas diabetes mellitus type 2 was). The well-written paper attempts to answer a pertinent debate on whether IFG is an independent risk factor for incident cardiovascular events—the data thus far has been variable and heterogeneous (2,3). However, a few interesting points arise from the analysis, which we feel, may require clarification.